

WHAT IS CLAIMED IS:

1. A remultiplexing apparatus for multiplexing again a bit stream multiplexed with packets for program information comprising a combination of media information comprising:

5 a control information selecting means for selecting a packet containing program control information from said inputted bit stream;

a program control information editing means for editing contents of said selected program control information and
10 generating program control information corresponding to a bit stream to be outputted; and

a remultiplexing means for remultiplexing said program control information generated by said program control information editing means with a packet containing media
15 information in said inputted bit stream.

2. A remultiplexing apparatus according to claim 1; wherein said program control information comprises program-specific control information comprising packet ID number information
20 for media information constituting each program contained in said bit stream and all program control information comprising packet ID number information for said program-specific control information for all programs contained in said bit stream.

3. A remultiplexing apparatus according to claim 1; wherein contents of said program control information generated by said program control information editing means is updated in a case where contents of said program control information contained in said inputted bit stream is updated.

4. A remultiplexing apparatus according to claim 1; wherein a null packet is removed from packets inputted into said control information selecting means or said remultiplexing means.

5. A remultiplexing apparatus according to claim 1; wherein said remultiplexing means preferentially multiplies a packet containing program clock information for regenerating a system clock in the receiving side.

6. A remultiplexing apparatus according to claim 1 further comprising a null packet inserting means for matching a processing speed to an output rate of said outputted bit stream.

7. A remultiplexing apparatus according to claim 1 further comprising an external means information packet inserting means for matching a processing speed to an output rate of said outputted bit stream.

8. A remultiplexing apparatus according to claim 1 further comprising: a program organizing means for deciding program organization for said output bit stream from said program control information selected by said control information selecting means, and a remultiplexing means for editing contents of said program control information with said program control information editing means according to an instruction from said program organizing means and remultiplexing only packets each containing necessary media information.

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9. A remultiplexing apparatus according to claim 8; wherein program organization is decided in said program organizing means according to viewability restricting information restricting viewability for each program from said program control information, contents of said program control information is edited by said input program control information editing means according to instructions therefrom, and only specified programs with restricted viewability are again multiplexed by said remultiplexing means.

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10. A remultiplexing apparatus according to claim 1; wherein ID numbers of packets each containing media information are reallocated by said program control information editing means so that two numbers may not be identical, and an ID number reallocating means for reallocating packet ID numbers according

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to a result of reallocation above is provided therein.

11. A remultiplexing apparatus according to claim 1;
wherein said remultiplexing means outputs said bit stream in
5 synchronism to a clock inputted from an external means.

12. A remultiplexing apparatus according to claim 1 further
comprising a packet synchronizing buffer for insuring packet
synchronism between said plurality of input bit streams.

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13. A remultiplexing apparatus according to claim 1 further
comprising a system clock regenerating means for regenerating
a system clock from a packet containing program clock
information included in said input bit stream, wherein a system
15 clock value from said system clock regenerating means is
inserted as program clock information when said packet is
remultiplexed by said remultiplexing means.

14. A remultiplexing apparatus according to claim 1;
20 wherein said remultiplexing means rewrites a packet
containing program clock information for regenerating a system
clock in the receiving side to program clock information with
time fluctuation generated in remultiplication, having been
corrected.

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15. A remultiplexing apparatus for multiplexing again a plurality of bit streams multiplexed with packets for program information comprising a combination of media information and outputting remultiplexed bit streams as a bit stream comprising:

5 a program control information editing means for instructing an ID number for a packet containing program control information to a multiplexing transmission device generating said bit stream to be inputted into said remultiplexing apparatus;

10 an all program control information aborting means for aborting only a packet containing all program control information from said inputted bit stream; and

a remultiplexing means for remultiplexing the all program control information outputted from said program control
15 information editing means and an output from said all program control information aborting means.

16. A remultiplexing apparatus for multiplexing again a plurality of bit streams with multiplexed packets for program
20 information comprising a combination of media information and outputting remultiplexed bit streams as a bit stream comprising:

an all program control information aborting means for aborting only a packet containing the all program control information from a bit stream inputted into said remultiplexing
25 apparatus;

a program generating means for multiplexing media coded information prepared by coding media information as well as program specific control information with fixed-length packets and generating programs;

5 an all program control information generating means for generating an all program control information packet; and

10 a remultiplexing means for remultiplexing an output packet from said all program control information aborting means, an output packet from said program generating means, and said all program control information packet.